

December 8, 2016

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *RM-11738 – Enterprise Wireless Alliance and Pacific DataVision, Inc.
Petition for Rulemaking Regarding Realignment of 900 MHz Spectrum*

Dear Ms. Dortch:

Members of the Critical Infrastructure Coalition submit this letter to highlight the essential role that 900 MHz and adjacent networks have played in Hurricane Matthew and other natural disaster recovery efforts, including both internal recovery planning and customer communications, as outlined below.¹ Companies also used information gained via these networks to coordinate with the Federal Emergency Management Agency, the Department of Homeland Security, and the White House to help the federal entities assess and address recovery-related needs. Communications over 900 MHz networks are highly reliable, in part because current users understand and are responsive to each other's critical requirements, and the Commission must ensure that critical communications over 900 MHz networks remain available and free from interference. The Commission should decline pdvWireless, Inc. and the Enterprise Wireless Alliance's request that the Commission move forward with a Notice of Inquiry that specifically considers their controversial proposal to realign the 900 MHz band.²

The Devastating Effects of Hurricane Matthew

Hurricane Matthew charged up the East Coast of the United States from October 6 to 10 and caused at least 46 deaths, severe property destruction, and widespread power outages throughout Florida, Georgia, South Carolina, North Carolina, and Virginia.³ Efforts to recover from the storm and its impacts remain ongoing. Officials estimate that more than 3 million American customers lost power during the storm, with electricity customers experiencing

¹ Coalition members submitting this letter include: Alliant Energy, Duke Energy, Edison Electric Institute, Florida Power & Light Company, Harris Corporation, Lower Colorado River Authority, National Association of Water Companies, PECO Energy Company, Sensus USA Inc., Southern Company, Utilities Technology Council, and West View Water Authority.

² Letter from Elizabeth R. Sachs to Federal Communications Commission Chairman Tom Wheeler and Commissioners Ajit Pai, Mignon Clyburn, Jessica Rosenworcel, and Michael O'Rielly, RM-11738 (December 5, 2016).

³ Tom Di Liberto, *Record-Breaking Hurricane Matthew Causes Devastation*, Climate.gov (Oct. 18, 2016), <https://www.climate.gov/news-features/event-tracker/record-breaking-hurricane-matthew-causes-devastation>.

outages at the following levels in each affected state: 10 percent in Florida; 7 percent in Georgia; 33 percent in South Carolina; 14 percent in North Carolina; and 7 percent in Virginia.⁴ Fortunately, power was restored to most customers within a matter of days.

Electric Service Restoration Work Depends on 900 MHz Networks

Florida Power & Light Company. Communications over 900 MHz networks and on adjacent spectrum have been critical to restoring electricity service efficiently and safely to customers impacted by the storm. Florida Power & Light Company (“FPL”) extensively relied on 900 MHz voice dispatch systems to provide safe, reliable communications for workers in the field during service restoration and recovery. The FPL service territory experienced notable impacts to cellular voice and data systems, such that some workers in the field requested satellite phones to fill in for lost cellular service. Throughout Hurricane Matthew’s impact, only FPL’s 900 MHz voice radio dispatch communications remained consistently available to the company’s field workers. Along with traditional voice communications capabilities, FPL’s 900 MHz system also includes an emergency notification feature to alert dispatch command of any immediate threats to life and safety in the field. The emergency alert function is particularly crucial during recovery from natural disasters when safety risks are higher than usual and commercial networks are often not available.

Southern Company. When Hurricane Matthew hit Georgia’s eastern coast, Georgia Power’s 900 MHz Advanced Metering Infrastructure (“AMI”) communicated the critical information required to restore service as quickly as possible. During less severe storms, AMI outage reports combine with customer calls to give Georgia Power an understanding of outages. But, with the state’s mandatory evacuation of customers and Georgia Power personnel before Hurricane Matthew, customer calls did not occur. Instead, the company relied almost exclusively on AMI outage data to pinpoint the extent and location of outages. Georgia Power’s AMI system fed essential, valuable, and specific data into the company’s Outage Management System to provide the scale and location of outages, allowing critical planning and implementation decisions. Having early insight into outage locations was essential for planning and mobilization of key resources, additional staging sites, and material delivery points to the most impacted areas – actions that gave Georgia Power a significant head start in restoring power to its customers.

Providing evacuated customers with an up-to-date status of access to power at their homes and businesses is also essential. AMI meter data helped provide this information to customers through Georgia Power’s Outage Map and Outage Alert systems as the storm evolved and as restoration efforts ensued. As restoration progressed, Georgia Power used the AMI system data to eliminate unnecessary or duplicate truck rolls to locations that had already been restored and instead continuously deploy crews to areas where they could restore power to the

⁴ *Hurricane Matthew Caused Millions of Customers to Go without Power*, United States Energy Information Administration (Oct. 17, 2016), <https://www.eia.gov/todayinenergy/detail.php?id=28372>.

greatest number of customers in the shortest amount of time. Georgia Power also used its ability to “ping” an AMI meter to verify whether locations had power and communicate restoration status to evacuated customers. The ability to use AMI data in combination with the company’s other systems allowed Georgia Power to shorten the total restoration time by as much as days.

Duke Energy. Hurricane Matthew severely impacted two of Duke Energy’s major service areas, including the central and westerly portions of Florida and the eastern portions of North and South Carolina, causing considerable damage and power outages. Duke Energy’s 900 MHz land mobile radio (“LMR”) system proved to be indispensable for the recovery efforts by enabling coordination of damage assessments and subsequent efforts to restore power as quickly and safely as possible. During initial recovery efforts, voice radio system utilization in Duke Energy’s service areas in the Carolinas was more than five times higher than normal, and remained very high until all services were restored. During this recovery effort and previous recovery efforts, the reliability, availability, and unimpeded access to the 900 MHz voice radio system have repeatedly proved to be indispensable for the safe and timely restoration of power to public safety facilities, other critical infrastructure entities, and the general public. Any infringement, restrictions, interference, or loss of capacity of this system would have a very significant negative impact on Duke Energy’s ability to rapidly and safely repair damages and restore power as quickly and safely as possible.

900 MHz Networks Also Play Other Critical Roles

Critical Infrastructure Coalition members also use 900 MHz for other time sensitive critical communications that protect human life and property. For example, the Lower Colorado River Authority (“LCRA”) uses its 900 MHz digital trunked radio system to deliver information from its large hydrological data collection system, which measures rainfall and river conditions throughout 18 counties in Central Texas, to emergency management personnel, public safety authorities, and the National Oceanic and Atmospheric Administration (“NOAA”). Those agencies in turn use the information to warn the public of flash flooding during extreme weather events. In 2015, LCRA and the City of Austin upgraded the City of Austin Flood Early Warning System, incorporating LCRA’s 900 MHz digital trunked system. In addition, LCRA’s 900 MHz network provides communications services to police, fire, and EMS agencies in Central Texas, as well as to utilities, mass transportation agencies, and school districts in the region. The network provides for a high level of radio interoperability between these critical services, particularly during regional disasters such as floods, hurricanes, tornadoes, and wild fires, saving both lives and property.

Given the interoperable nature of the radio frequency, it is a common tool for community water systems to use to communicate to remote public drinking water and emergency responder facilities that provide fire protection. The National Association of Water Companies reports that data transmission in this band allows for real time operational changes and situational awareness to system operations, water quality, flows, and volumes to ensure public health and safety.

FPL also depends on 900 MHz systems for its Nuclear Siren Public Notification System, which provides verbal warnings related to critical events at its nuclear plants to local residents within the 10 mile Emergency Planning Zone of each plant and is required by the Nuclear Regulatory Commission. Both of FPL's nuclear power plants were within the potential path of Hurricane Matthew. Ensuring these communications are not disrupted is imperative.

We Cannot Afford to Risk Disrupting Critical Communications

The Enterprise Wireless Alliance and pdvWireless, Inc. proposal to realign the 900 MHz band would closely pack existing private land mobile radio systems into a new, condensed band and would place broadband operations directly adjacent to both LMR systems and AMI operations, increasing the risk of harmful interference to these critical communications. To date, the proposal has failed to demonstrate the necessary public interest benefits or to ensure existing operations, like those detailed above, can continue without interference. The Commission must recognize the critical importance of 900 MHz and adjacent spectrum networks and ensure they remain free from interference and available to serve the public. The Critical Infrastructure Coalition urges the Commission to decline to move forward with a Notice of Inquiry specifically considering the pdvWireless, Inc. and Enterprise Wireless Alliance proposal.

Sincerely,

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